

## REMARKS

### Support for the Amendment

The amendment to claim 39 finds support throughout the specification, for example, at page 1, lines 7-10. New claim 40 also finds support throughout the specification, for example, in Example 1 on pages 9-25.

### The Office Action

Claims 20-39 are pending. Claims 20-39 stand rejected for indefiniteness. Claim 39 stands further rejected for anticipation by Ingram (U.S. Patent No. 6,130,076). Claims 20-39 are also rejected for obviousness over Geneix et al. (U.S. Patent No. 4,765,992; hereafter “Geneix”) in view of Applicant’s admissions.

### Rejections under 35 U.S.C. § 112, second paragraph

Claims 20-39 stand rejected for indefiniteness for reciting “effective amount.” As an initial matter, Applicant notes that claims 20-38 do not recite this language, and the rejection of these claims for indefiniteness should therefore be withdrawn. Claim 39 has been amended to recite “an effective amount for alcoholic fermentation.” The specification also provides guidelines for determining such an amount, for example, at page 6, lines 10-12. The rejection of claim 39 should also be withdrawn.

Rejections under 35 U.S.C. § 102

Claim 39 stands rejected for anticipation by Ingram. As stated in M.P.E.P. § 2131.01, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference” (citations omitted; emphasis added). This standard has not been met in the present case.

Claim 39 is directed to a fermentation composition including a fermentation micro-organism and at least one mineral-rich or mineral-enriched yeast. In the mineral-rich or mineral-enriched yeast of the instant invention, the mineral is physically associated with the yeast and is not free in solution when added to a fermentation process. A mineral-rich or mineral-enriched yeast is therefore distinct from a mixture of yeast products (e.g., ghosts or autolysate) and free mineral.

In making this rejection, the Office states that “Ingram teaches the production of ethanol using ethanol producing bacteria ... and a yeast autolysate based medium that includes magnesium” (emphasis added). The medium of Ingram contains a mixture of yeast autolysate and free magnesium sulfate that is added to a fermentation process. As stated above, a mixture of yeast and free magnesium is not equivalent to the mineral-rich or mineral-enriched yeasts of the present invention. This non-equivalence is clearly indicated in the instant specification in Tables 3 and 4 on pages 19 and 20, where mineral-rich or mineral-enriched yeast (labeled “Zinc Yeast”) produce a higher alcohol content in a shorter amount of time than yeast mixed with free mineral (labeled “Dead Yeast + zinc chloride). Since, under the same conditions, mineral-rich or mineral-enriched yeast produce a different result than a mixture of yeast and free mineral, the

compositions are necessarily different. Thus, Ingram fails to teach or suggest a composition containing a mineral-rich or mineral-enriched yeast, as required in instant claim 39. The rejection of claim 39 for anticipation should therefore be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 20-39 stand rejected for obviousness over Geneix in view of Applicant's admission. In order to establish a *prima facie* case of obviousness, the prior art references, alone or in combination, must teach or suggest all of the claim limitations (M.P.E.P. § 2143.03). In the present case, the combined cited art fails to teach all of the limitations of independent claims 20 (from which claims 21-38 depend) and 39, and Applicant respectfully traverses this rejection.

Claims 20 and 39 require a fermentation composition including a fermentation microorganism and a mineral-rich or mineral-enriched yeast. As stated above, a mineral-rich or mineral-enriched yeast contains a mineral physically associated with the yeast, which is distinct from a mixture of yeast and a free mineral.

The cited art does not teach or suggest use of a mineral-rich or mineral-enriched yeast in a composition or method for alcoholic fermentation. Geneix uses cell walls or yeast ghosts that have been boiled or autolysed and washed (col. 2, ll. 3-7); Geneix does not use yeast ghosts from mineral-rich or mineral-enriched yeast. Applicant's admission relied on by the office is that it is known in the art to add minerals to a fermentation process. This is a far cry from a suggestion to use the mineral-rich or mineral-enriched yeast of claims 20 and 39 in a fermentation process or composition. At best, the

combination (even if appropriate, which Applicant does not concede) of the teachings of Geneix and Applicant's admission produces a mixture of yeast ghosts and free minerals, not a mineral-rich or mineral-enriched yeast, as required by the instant claims. As stated above, a mineral-rich or mineral-enriched yeast, in which the mineral is physically associated with the yeast, is distinct from the mixture of yeast ghosts and a free mineral. The cited art therefore fails to teach or suggest all of the limitations of the instant claims, and the obviousness rejection should be withdrawn.


### CONCLUSIONS

Applicant submits that the claims are in condition for allowance, and such action is respectfully requested. Enclosed is a petition to extend the period of reply for three months, to and including June 5, 2003. If there are any additional charges, or any credits, please apply them to Deposit Account No. 03-2095.

Date: June 5, 2003

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